

AMENDMENTS TO THE CLAIMS

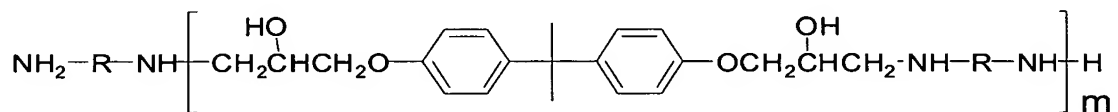
The following listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-20 (canceled)

Claim 21 (currently amended): A method for producing random form of nanosilicate plates, comprising the steps of:

(a) preparing amine-terminating epoxy oligomers (AEO) from polyoxyalkylene diamine and diglycidyl ether of bisphenol-A at a molar ratio of (m+1) : m, where m=1 to 5, and at a reaction temperature between 25 °C and 150°C, to obtain a polymeric amine exfoliating agent, having a general formula:

AEO



where m=1 to 5

wherein ~~m is from 1 to 5~~; R is an organic group selected from the group consisting of polyoxybutylene groups, polyoxypropylene groups, poly(oxyethylene/oxypropylene) groups, and polyoxyethylene amino groups;

(b) adding inorganic acid including hydrochloric acid to ~~acidify~~ said AEO to form an acidified AEO;

(c) mixing said acidified AEO with a swelled inorganic layered silicate clay so as to exfoliate said silicate clay directly through cationic exchange to form an exfoliated silicate clay; and

(d) ~~adding~~ mixing an aqueous solution containing a hydroxide or a chloride of alkali metal or alkaline-earth metal, ethanol, water and an organic solvent to said exfoliated silicate clay obtained in step (c) to form a mixture, and then, after mixing, keeping the mixture static to form an upper organic phase and a lower water phase containing nanosilicate plates.

Claim 22 (currently amended): The method as claimed in claim 21, wherein said polyoxyalkylene diamine used in said step (a) has molecular weight ranging from 400 to 4,000 g/mol.

Claim 23 (currently amended): The method as claimed in claim 21, wherein said polyoxyalkylene diamine used in said step (a) is selected from the group consisting of polyoxypropylene diamine, polyoxyethylene diamine, polyoxybutylene diamine and poly(oxyethylene-oxypropylene) diamine ~~polyetheramines~~.

Claim 24 (original): The method as claimed in claim 21, wherein 25-100 wt% of said exfoliating agent in said step (a) has molecular weight ranging from 2,000 to 20,000.

Claim 25 (original): The method as claimed in claim 21, wherein said exfoliating agent and said inorganic acid are mixed in an equivalent ratio 2:1 in said step (b).

Claim 26 (currently amended): The method as claimed in claim 21, wherein the molar ratio of amino groups in said exfoliating agent to cationic exchange capacity of said silicate clay ~~ranging~~ ranges from 3:1 to 1:1 in said step (c).

Claim 27 (original): The method as claimed in claim 21, wherein said silicate clay used in said step (c) is selected from the group consisting of montmorillonite, kaolin, and mica.